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ABSTRACT

This paper explores the syntactic and semantic character of previously undescribed sentence complements (SCs) in Emai, a Benue-Congo language of Nigeria's Edoid group. Data come from ongoing documentation incorporating oral narrative texts as well as dictionary and grammar descriptions. To delineate the grammatical properties of SCs, the paper examines Emai's tense-aspect-modality (TAM) particles. They consist of tense/aspect inflection through tone and particle marking, auxiliary particles from the modality classes deontic and epistemic, from the relative tense class and from predicate negation. Although influential linguistic investigations have emphasized the constraining role of matrix clause verb on sentence complements, the findings suggest that SCs themselves may constrain their grammatical properties and that their modal character may prove fruitful for grammatical investigation. (Contains 13 references.) (SM)

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Emai Sentence Complements in Typological Perspective

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Emai Sentence Complements in Typological Perspective[1]

Waters (2000) offers an overview of syntactic tendencies characterizing complex sentence formation in the languages of Africa. His description highlights the prevalence of syntactic strategies reflecting parataxis as opposed to hypotaxis, the latter relying on overt marking of clause dependency. Nonetheless, there has been little discussion of where these broad strategies are distributed across the continent or what typical subclasses of paratactic and hypotactic patterns are found.

One class of hypotactic clause consists of sentence complements (SCs) embedded under a matrix clause verb and marked by a complementizer. According to Waters, SCs in African languages exhibit three syntactic tendencies. Complementizers themselves are often morphologically related to verbs of "saying." SCs in some languages are marked by more than one complementizer. For instance, complement verbs are inflected for the indicative mood when their situation is assumed to be factual, i.e. to have taken place, and for the subjunctive when non-factual or when no implication exists that the situation took place. And thirdly, SCs frequently employ a special pronoun class, i.e. logophorics, to designate referential identity between their noun phrases and the matrix clause subject.

Before proceeding further, let us briefly consider assumptions regarding complementizer forms and their relation to SC grammatical properties. Waters, as suggested above, assumes that event factivity or factuality distinguishes indicative from subjunctive complementizers. Assuming the same factor controls matrix clause mood, one would expect categories compatible with indicative or subjunctive in matrix clauses to operate in their respective SCs. Either of two hypotheses might then govern this operation. Under an aligned hypothesis, indicative SCs would attract only matrix clause markers of the indicative, and subjunctive SCs only matrix markers of the subjunctive. Under an unaligned hypothesis, matrix clause markers of mood would not align with their respective SC type. Matrix markers of the subjunctive might occur in indicative SCs and matrix markers of the indicative might occur in subjunctive SCs.

Noonan (1992) makes a factivity assumption similar to Waters, although his discussion focuses on the relationship of SC tense to matrix clause tense. This position appears influenced by the matrix control principle of Givon (1980). SCs may express independent time reference vis-à-vis the matrix clause, the hearer inferring that the SC event occurred, or dependent time reference, the hearer inferring neither occurrence nor non-occurrence of the SC event. Accordingly, expression of tense should be constrained by SC type. Noonan implies, for example, that future tense with its indeterminate time reference should occur under a subjunctive complementizer.

Although tense and factivity or factuality may reveal significant aspects of SC grammatical properties, modality may also play an illuminating role. In the general sense of Palmer (2001), we assume modality refers to attitude toward a proposition (epistemic) or an event (deontic). Some modality categories may be privileged in SCs. Frajzyngier (1995) views complementizers as components of the modality system found in language, in particular clause level modality. He argues that the function of a complementizer is not

simply to separate matrix from embedded clauses or to mark complement as distinct from matrix clause. These separation and identity functions appear particularly inadequate in languages where multiple complementizers exist. As part of the modality system, complementizers should exist in complementary distribution with other modality markers. The absence of matrix clause complementizers, he argues, results from the fact that the canonical and unmarked matrix clause conveys information the speaker intends as his or her belief and assumes to be true. Matrix clauses, on this assumption, possess an inherent epistemic modality. Since they express neither an obligation nor wish, they are not marked for deontic (event) modality. Given the availability of epistemic and deontic markers in the matrix clause, a matrix complementizer also expressing epistemic or deontic modality would be judged redundant. SCs, on the other hand, do not convey the speaker's intended belief. They may reflect either no inherent belief condition capable of modulation by epistemic categories or a belief condition attributed to an event participant such as the matrix subject. This line of inquiry suggests the need for exploring carefully the role of epistemic and deontic modality in SCs.

Noonan (1985) brings these strands of factivity (factuality) and modality together, while adding a third. He highlights three semantic distinctions underlying the indicative/subjunctive split in SCs. These concern time, epistemic truth value and discourse status. SCs may be time dependent if their time reference is dictated by the matrix verb. They may be epistemically dependent if they qualify commitment to the truth value of a proposition. And they may be discourse dependent if they express shared knowledge among participants. Although Noonan emphasizes these restrictions only for the indicative/subjunctive split among SCs, we would like to broaden their application to all SCs in our database. Furthermore, since Waters, Noonan and Frajzyngier emphasize the crucial interplay between SCs and what amounts to tense-aspect-modality (TAM) marking (Payne 1997), we will broaden our application through examination of these and related categories of the traditional auxiliary phrase.

For this paper, we explore the syntactic and semantic character of previously undescribed SCs in Emai, a Benue-Congo language of Nigeria's Edoid group (Bendor-Samuel 1989). We rely on data from on-going documentation incorporating oral narrative texts (Schaefer and Egbokhare 1999) as well as dictionary and grammar descriptions (Schaefer and Egbokhare In preparation). To delineate the grammatical properties of SCs, we examine Emai's TAM particles. They consist of tense/aspect inflection through tone and particle marking, auxiliary particles from the modality classes deontic and epistemic, from the relative tense class and from predicate negation.

Emai manifests three complementizer forms as well as information question (*wh*) complements. The complementizers consist of the embedded clause particles *khi* (1a), *si* (1b), *li* (1c) and question words (e.g. *ébé'* 1d).[2]

1.a. ólí ómọ̀hè ẹ́ẹ́ní khí ólì òkpòsò dá ólí ényò̀[3].
the man know-F IND the woman drink the wine
'The man knew that the woman drank the wine.'

b. ólí ómóhé míáá òhí sí ólì òkpòsò dá ólí ényò.
the man ask Ohi COND the woman drink the wine
'The man asked Ohi whether the woman drank the wine.'

c. ólí ómòhè ò ó hòò lí ólí ókpósó dà ényò.
the man SC C want SUBJ the woman drink wine
'The man wants the woman to drink wine.'

d. ólí ómóhé hón ébé' ólí ókpósó í dá ólí ényò.
the man hear how the woman MAN drink the wine
'The man heard how the woman drank the wine.'

None of these complementizers appears phonologically or morphologically related to Emai's 'say' verb *e* or to any other verb of saying (e.g. *ta* 'speak').

2. ólí ómóhé ré é ói, "ólì òkpòsò gbé ólí ófè."
the man SEQ say it the woman kill the rat
'The man then said, "The woman killed the rat."'

Emai SCs admit logophoric pronouns establishing referential identity with the matrix subject. As third person singular subject of a complement clause, the logophoric pronoun *yón* (3a) contrasts with the third person singular personal pronoun (*ó* 'she' 3b).

3.a. ólí ókpósó ré é khí yón gbé ólí ófè.
the woman SEQ say IND she kill the rat
'The woman said that she (herself) killed the rat.'

b. ólí ókpósó ré é khí ó gbé ólí ófè.
the woman SEQ say IND she kill the rat
'The woman said that she (other) killed the rat.'

Logophoric pronouns with one exception appear in Emai SC types. Besides *khi* complements, they appear under *si* and *li*. Question word (QW) complements allow logophorics only when embedded indirectly under a higher 'say' predicate (4c-d).

4.a. ólí ókpósó ré é sí yón gbé ólí ófè.
the woman SEQ say COND she kill the rat
'The woman asked whether she (herself) killed the rat.'

b. ólí ókpósó ré é lí yón í gbè ólí ófè.
the woman SEQ say SUBJ she HOR kill the rat
'The woman said that she (herself) should kill the rat.'

c. * ólí ókpósó ré é ébé' yón í gbé ólí ófè.
the woman SEQ say how she MAN kill the rat

d. ólí ómóhé ré é khí óli òkpòsò één ébé' yón í gbé ólí ófè.
the man SEQ say IND the woman know how he MAN kill the rat
'The man said that the woman knew how he (himself) killed the rat.'

We now illustrate Emai TAM categories in matrix clauses and examine their distribution in the SC types *khi*, *si*, *li*, and QW. Complement types restrict TAM particles in a non-uniform fashion. *khi* and *si* complements exhibit the fewest overall restrictions. QW complements are somewhat more restricted. *li* complements exhibit the most severe restrictions; they uniformly reject all TAM categories.

khi < QW < li
si

Utilizing the broad features outlined by Noonan (1985, 1992), we can identify the general nature of the restriction linked to each SC type. Since some of these restrictions overlap, they will require closer scrutiny and further elaboration. In particular, the facts require some terminology more finely attuned to the facts at hand.

khi
epistemically restricted

si
epistemically restricted

ebe'
discourse restricted

li
tense restricted

As our first Emai TAM category, perfective and imperfective tense/aspect are registered by four categories. In matrix clauses, we find the completive past (5a), completive present (5b), continuous (5c) and habitual (5d). Notice that high tone (*é* 'eat') characterizes the verb with perfective categories completive past and completive present and low tone (*è* 'eat') with imperfective categories continuous and habitual. Marked (*ólí ómóhé*) and unmarked (*ólí ómòhè*) subject melody further differentiate past from present in the perfective and habitual from continuous in the imperfective.

5.a. ólí ómóhé é ólí émàè.
the man eat the food
'The man ate the food.'

b. ólí ómòhè é ólí émàè.
the man eat the food
'The man has eaten the food.'

c. ólí ómòhè ò ó è òlí émàè.
the man SC C eat the food
'The man is eating the food.'

d. ólí ómóhé ó ò dà ényò.
the man SC H drink wine
'The man drinks wine.'

These tense/aspect paradigms occur in SCs, although they are constrained by SC type. All appear under *khi* and *si*, some under QW but none under *li*. *khi* complements admit the completive past, completive present, continuous and habitual (6).

6.a. ólí ókpósó ré é khí ólí ómóhé é ólí émàè.
the woman SEQ say IND the man eat the food
'The woman said that the man ate the food.'

b. ólí ókpósó ré é khí ólí ómòhè é ólí émàè.
the woman SEQ say IND the man eat the food
'The woman said that the man has eaten the food.'

c. ólí ókpósó ré é khí ólí ómòhè ò ó è òlí émàè.
the woman SEQ say IND the man SC C eat the food
'The woman said that the man is eating the food.'

d. ólí ókpósó ré é khí ólí ómóhé ó ò dà ényò.
the woman SEQ say IND the man SC H drink wine
'The woman said that the man drinks wine.'

si complements allow each of the perfective and imperfective categories (7).

7.a. ólí ókpósó ré é sí ólí ómóhé é ólí émàè.
the woman SEQ say COND the man eat the food
'The woman asked whether the man ate the food.'

b. ólí ókpósó ré é sí ólí ómòhè é ólí émàè.
the woman SEQ say COND the man eat the food
'The woman asked whether the man has eaten the food.'

c. ólí ókpósó ré é sí ólí ómòhè ò ó è òlí émàè.
the woman SEQ say COND the man SC C eat the food
'The woman asked whether the man is eating the food.'

d. ólí ókpósó ré é sí ólí ómóhé ó ò tò vbì ényò.
the woman SEQ say COND the man SC H fond LOC wine
'The woman asked whether the man is fond of wine.'

ébé' complements restrict tense/aspect. They admit the completive past (8a) and habitual (8d), both showing marked melody subjects, but not the completive present (8b) or continuous (8c).

8.a. ólí ókpósó ré é ébé' ólí ómóhé í é ólí émàè.
the woman SEQ say how the man MAN eat the food
'The woman wondered how the man ate the food.'

b. * ólí ókpósó ré é ébé' ólí ómòhè í é ólí émàè.
the woman SEQ say how the man MAN eat the food

c. * ólí ókpósó ré é ébé' ólí ómòhè ò ó í è òlí émàè.
the woman SEQ say how the man SC C MAN eat the food

d. ólí ókpósó ré é ébé' ólí ómóhé ó ò í dà énỳò.
the woman SEQ say how the man SC H MAN drink wine
'The woman wondered how the man drinks wine.'

li complements behave as no other with regard to tense/aspect. They require a tone pattern associated with the subjunctive in matrix clauses (Schaefer and Egbokhare 1998), in the imperative for example (low tone on the verb phrase initial element regardless of it being the verb *è* or some auxiliary or preverb category *dègbé* 9b). Besides the initial low tone of their verb phrase, *li* complements require a grammatical subject with a marked melody (*ólí ómóhé*) pattern. They never admit any tense/aspect category, perfective or imperfective.

9.a. ólí ókpósó ré é lí ólí ómóhé è òlí émàè.
the woman SEQ say SUBJ the man eat the food
'The woman urged the man to eat the food.'

b. ólí ókpósó ré é lí ólí ómóhé dègbé é ólí émàè.
the woman SEQ say SUBJ the man carefully eat the food
'The woman urged the man to carefully eat the food.'

Emai deontic (event) modality is conveyed by three particles. Matrix clauses show predictive *ló* (10a), anticipative *ló* (10b) and hortative *í* (10c). Each category reveals the tonal melody associated with the matrix clause subjunctive (low tone *è* 'eat' on the first element following the subjunctive category). Predictive and anticipative differ in tone of their grammatical subject, marked melody (*ólí ómóhé*) predictive and unmarked (*ólí ómòhè*) anticipative. Semantically, they differ as to their point of reference on the time axis, predicative being further removed from the moment of utterance than anticipative.

10.a. ólí ómóhé ló è òlí émàè.
the man PRED eat the food
'The man will eat the food.'

b. ólí ómòhè ló è òlí émàè.
the man ANTI eat the food
'The man is about to eat the food.'

c. ǫ́lí ǫ́mǫ̀hè í è ǫ̀lí émàè.
the man HOR eat the food
'The man should eat the food.'

These same deontic modality particles are found in SCs. However, their distribution is constrained by SC type. One subset appears with *khi*, another subset with *si*, a more constrained subset with QW and none with *li*. *khi* complements accept predictive (11a) and anticipative (11b) but not hortative (11c).

11.a. ǫ́lí ókpósó ré é khí ǫ́lí ǫ́móhé ló è ǫ̀lí émàè.
the woman SEQ say IND the man PRED eat the food
'The woman said that the man will eat the food.'

b. ǫ́lí ókpósó ré é khí ǫ́lí ǫ́mǫ̀hè ló è ǫ̀lí émàè.
the woman SEQ say IND the man ANTI eat the food
'The woman said that the man is about to eat the food.'

c. * ǫ́lí ókpósó ré é khí ǫ́lí ǫ́mǫ̀hè í è ǫ̀lí émàè.
the woman SEQ say IND the man HOR eat the food

si complements accept predictive (12a) and hortative (12c) but not anticipative (12b).

12.a. ǫ́lí ókpósó ré é sí ǫ́lí ǫ́móhé ló è ǫ̀lí émàè.
the woman SEQ say COND the man PRED eat the food
'The woman asked whether the man will eat the food.'

b. * ǫ́lí ókpósó ré é sí ǫ́lí ǫ́mǫ̀hè ló è ǫ́lí émàè.
the woman SEQ say COND the man ANTI eat the food

c. ǫ́lí ókpósó ré é sí ǫ́lí ǫ́mǫ̀hè í è ǫ̀lí émàè.
the woman SEQ say COND the man HOR eat the food
'The woman asked whether the man should eat the food.'

ébé complements accept only predictive from the deontic modality class (13a). And *li* complements admit no deontic modality particles (13d).

13.a. ǫ́lí ókpósó ré é ébé' ǫ́lí ǫ́móhé ló ì é ǫ́lí émàè.
the woman SEQ say how the man PRED MAN eat the food
'The woman wondered how the man will eat the food.'

b. * ǫ́lí ókpósó ré é ébé' ǫ́lí ǫ́mǫ̀hè ló ì é ǫ́lí émàè.
the woman SEQ say how the man ANTI MAN eat the food

c. * ǫ́lí ókpósó ré é ébé' ǫ́lí ǫ́mǫ̀hè í é ǫ́lí émàè.
the woman SEQ say how the man HOR eat the food

d. * ólí ókpósó ré é lí ólí ómóhé ló è ólí émàè.
the woman SEQ say SUBJ the man PRED eat the food

Epistemic modality in Emai involves seven particles. They are apportioned among three judgment types regarding proposition truth value (Palmer 2001): deductive (*za* 14a and 14b), speculative (*ma* 14c, *vba* 14d, *bia* 14e) and assumptive (*rere* 14f, *kha* 14g).

14.a. ólí ómòhè záà é ólí émàè.
the man DED eat the food
'The man must have eaten the food.'

b. ólí ómóhé zá é ólí émàè.
the man RES eat the food
'As a result the man ate the food.'

c. ólí ómòhè máà é ólí émàè.
the man CER eat the food
'Surely the man ate the food.'

d. ólí ómòhè vbà é ólí émàè?
the man DUB eat the food
'Did the man really eat the food?'

e. ólí ómòhè bià é ólí émàè?
the man DUB eat the food
'The man ate the food, didn't he?'

f. ólí ómòhè rèrè é ólí émàè.
the man CONC eat the food
'The man even ate the food.'

g. ólí ómóhé khà é ólí émàè.
the man HYP eat the food
'The man would have eaten the food.'

The distribution of epistemic modality particles is limited by SC type. *khi* and QW tolerate complementary sets of particles, *si* permits some particles and *li* none. *khi* allows deductive *za* (15a) and assumptive *kha* (15b).

15.a. ólí ókpósó ré é khí ólí ómòhè záà é ólí émàè.
the woman SEQ say IND the man DED eat the food
'The woman said that the man must have eaten the food.'

b. ólí ókpósó ré é khí ólí ómóhé khà é ólí émàè.
the woman SEQ say IND the man HYP eat the food
'The woman said that the man would have eaten the food.'

ébé' complements permit the speculative particle *ma* (16a), but they accept no deductive or assumptive judgment particles. *si* complements allow none of the deductive, assumptive or speculative particles (16b). And *li* complements, consistent with their rejection of deontic modality, accept no epistemic particles at all (16c).

16.a. ólí ókpósó ré é ébé' ólí ómóhé má í é ólí émàè.
the woman SEQ say how the man CER MAN eat the food
'The woman asked how the man surely ate the food.'

b. * ólí ókpósó ré é sí ólí ómóhé má é ólí émàè.
the woman SEQ say COND the man CER eat the food

c. * ólí ókpósó ré é lí ólí ómóhé mà é ólí émàè.
the woman SEQ say SUBJ the man CER eat the food

Relative tense or taxis is conveyed by three Emai particles. In matrix clauses, we find the categories subsequent *kpẹ* (17a), anterior *ke* (17b) and sequential *rẹ* (17c).

17.a. ólí ómóhé kpé é ólí émàè.
the man SUB eat the food
'The man ate the food beforehand.'

b. ólí ómóhé ké é ólí émàè.
the man ANT eat the food
'The man ate the food afterward.'

c. ólí ómóhé ré é ólí émàè.
the man SEQ eat the food
'And then the man ate the food.'

The distribution of relative tense particles is constrained by SC type. *khi* and *si* complements allow some relative tense marking, while QW and *li* complements do not. SCs under *khi* admit only subsequent *kpẹ* (18a).

18.a. ólí ókpósó ré é khí ólí ómóhé kpé é ólí émàè.
the woman SEQ say IND the man SUB eat the food
'The woman said that the man ate the food beforehand.'

b. * ólí ókpósó ré é khí ólí ómóhé ké é ólí émàè.
the woman SEQ say IND the man ANT eat the food

c. * ólí ókpósó ré é khí ólí ómóhé ré é ólí émàè.
the woman SEQ say IND the man SEQ eat the food

si complements permit subsequent (19a) and anterior (19b). *ébé'* complements fail to accept any relative tense marking (19c). Likewise, *li* complements restrict relative tense particles absolutely (19d).

19.a. ólí ókpósó ré é sí ólí ómóhé kpé é ólí émàè.
the woman SEQ say COND the man SUB eat the food
'The woman asked whether the man ate the food beforehand.'

b. ólí ókpósó ré é sí ólí ómóhé ké é ólí émàè.
the woman SEQ say COND the man ANT eat the food
'The woman asked whether the man ate the food afterward.'

c. * ólí ókpósó ré é ébé' ólí ómóhé kpé é ólí émàè.
the woman SEQ say how the man SUB eat the food

d. * ólí ókpósó ré é lí ólí ómóhé kpé é ólí émàè.
the woman SEQ say SUBJ the man SUB eat the food

The last TAM particle we consider is predicate negation. In matrix clauses, predicate negation (NEG) is designated by the negative particle *i*.

20. ólí ómòhè í ì è òlí émàè.
the man SC NEG eat the food
'The man did not eat the food.'

SC type restricts distribution of predicate negation. SCs marked by *khi* (21a) and *si* (21b) permit predicate negation whereas QW (21c) and *li* (21d) do not.

21.a. ólí ókpósó ré é khí ólí ómòhè í ì è òlí émàè.
the woman SEQ say IND the man SC NEG eat the food
'The woman said that the man did not eat the food.'

b. ólí ókpósó ré é sí ólí ómòhè í ì è òlí émàè.
the woman SEQ say COND the man SC NEG eat the food
'The woman asked whether the man did not eat the food.'

c. * ólí ókpósó ré é ébé' ólí ómòhè í ì í è òlí émàè.
the woman SEQ say how the man SC NEG MAN eat the food

d. * ólí ókpósó ré é lí ólí ómòhè í ì è ólí émàè.
the woman SEQ say SUBJ the man SC NEG eat the food

As the preceding sections have illustrated, *khi* and *si* complements restrict TAM particles the least. Question word complements are more limiting, although their overall pattern is akin to *khi* and *si*. The most restricted TAM marking occurs under SCs marked by *li* complements. The latter reject all TAM categories: tense/aspect, deontic and epistemic modality, relative tense and predicate negation. To summarize the distributional facts, we provide a feature grid whose axes are TAM categories and complementizer types. The resulting coordinates indicate whether a complement type allowed some (+) or none (-) of the respective TAM category members.

	khi	si	QW	li
tense/aspect	+	+	+	-
deontic	+	+	+	-
epistemic	+	-	+	-
relative tense	+	+	-	-
negation	+	+	-	-

Our grid reveals the crucial underpinning of Emai sentence complements by modality notions. *li* and *khi* complements do not split simply along the subjunctive and indicative mood types found in matrix clauses, as the aligned hypothesis would suggest. *khi*, and for that matter *si*, accepts some deontic particles. *khi*-complements allow the predictive and anticipative, both of which reflect tone marking associated with the subjunctive in matrix clauses, refer to events not yet realized or non-factual, and imply that the complement event has not taken place by the moment of utterance. A feature grid showing the distribution of Emai TAM particles in matrix clauses is shown below; it reveals in particular the link between deontic and subjunctive.

	MATRIX INDICATIVE	MATRIX SUBJUNCTIVE
tense/aspect	+	-
deontic	-	+
epistemic	+	-
relative tense	+	-
negation	+	-

As an initial attempt to delineate Emai's relationship between complementizers and TAM categories, we postulate the following. *khi* complements are grounded to assertive force rather than factivity or factuality. Their assertive force includes deontic predictive and anticipative non-factuality. This allows deductive and assumptive epistemic judgments. Speculative judgments are disallowed. As to our second conclusion, *si* complements are reserved for dubitative force. They convey some level of doubt about the veracity of their proposition. The inherently speculative nature of *si* makes it incompatible with speculative judgment particles from the epistemic class as well as with deductive and assumptive judgments. Our third point pertains to deontic (event) modality. *li* complements are allotted obligative force. Recall that no TAM forms

associated with the subjunctive in matrix clauses occur in *li* complements, and their tonal pattern is consistent with matrix subjunctives. Presumably, the event force of matrix subjunctive particles, i.e. the tensed character of predictive and anticipative, conflicts with the obligative force of the *li* complement. And our fourth supposition is that question word complements register presumptive force. They are constrained by discourse in their presumption that an event has occurred for which some element designated by the question word is unknown. As a result, they accept only the mildest speculative judgment and the most distant event modality, rejecting deductive and assumptive judgments as well as proximal event modality.

khi assertive force	*si* dubitative force
ébé' presumptive force	*li* obligative force

Although influential linguistic investigations have emphasized the constraining role of matrix clause verb on sentence complements (Givon 1980), our findings suggest that SCs themselves may constrain their grammatical properties and that their modal character may prove fruitful for grammatical investigation. We conclude with the hope that more extensive description of individual African languages will contribute to a finer characterization of sentence complement distribution on the continent.

ENDNOTES

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[2] Orthographic conventions for Emai are consistent with those in Schaefer (1987), where **o̲** represents a lax mid back vowel, **e̲** a lax mid front vowel, and **vb** a voiced bilabial approximant. High tone is marked by an acute accent, low tone by a grave accent, and high downstep by an acute accent followed by an apostrophe.

[3] Abbreviations used throughout this paper include the following: ANT=anterior, ANTI= anticipative, C=continuous, CER=certaintive, CONC=concessive, COND=conditional, DED=deductive, DUB=dubitative, F=factative, H=habitual, HOR=hortative, HYP= hypothetical, IND=indicative, LOC=locative, M=manner, NEG=negative, PRED= predictive, RES=resultative, SC=subject concord, SEQ=sequential, SUB=subsequent, SUBJ=subjunctive.

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